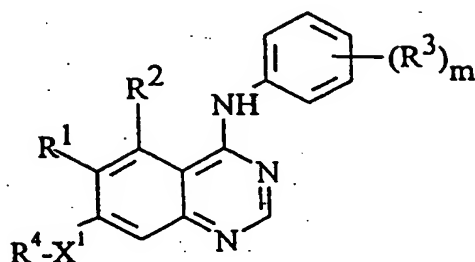


CLAIMS

1. A quinazoline derivative of the formula I:



(I)

[wherein:

m is an integer from 1 to 2;

R¹ represents hydrogen, hydroxy, halogeno, nitro, trifluoromethyl, cyano, C₁₋₃alkyl, C₁₋₃alkoxy, C₁₋₃alkylthio, or -NR⁵R⁶ (wherein R⁵ and R⁶, which may be the same or different, each represents hydrogen or C₁₋₃alkyl);

R² represents hydrogen, hydroxy, halogeno, methoxy, amino or nitro;

R³ represents hydroxy, halogeno, C₁₋₃alkyl, C₁₋₃alkoxy, C₁₋₃alkanoyloxy, trifluoromethyl, cyano, amino or nitro;

X¹ represents -O-, -CH₂-, -S-, -SO-, -SO₂-, -NR⁷CO-, -CONR⁸-, -SO₂NR⁹-, -NR¹⁰SO₂- or -NR¹¹- (wherein R⁷, R⁸, R⁹, R¹⁰ and R¹¹ each independently represents hydrogen, C₁₋₃alkyl or C₁₋₃alkoxyC₂₋₃alkyl);

R⁴ is selected from one of the following thirteen groups:

- 1) C₁₋₃alkylR¹² (wherein R¹² is a 5 or 6 membered saturated heterocyclic group with one or two heteroatoms, selected independently from O, S and N, which heterocyclic group is linked to C₁₋₃alkyl through a carbon atom and which heterocyclic group may bear one or two substituents selected from oxo, hydroxy, halogeno, C₁₋₄alkyl, C₁₋₄hydroxyalkyl, C₁₋₄alkoxy, carbamoyl, C₁₋₄alkylcarbamoyl, N,N-di(C₁₋₄alkyl)carbamoyl, C₁₋₄alkanoyl and C₁₋₄alkoxycarbonyl) or C₁₋₃alkylR¹³ (wherein R¹³ is a group selected from pyrrolidin-1-yl, imidazolidin-1-yl and thiomorpholino, which group may bear one or two substituents selected from oxo, hydroxy, halogeno, C₁₋

- C_{1-4} alkyl, C_{1-4} hydroxyalkyl, C_{1-4} alkoxy, carbamoyl, C_{1-4} alkylcarbamoyl, $\text{N,N-di}(\text{C}_{1-4}\text{alkyl})\text{carbamoyl}$, C_{1-4} alkanoyl and C_{1-4} alkoxycarbonyl);
- 2) $\text{C}_{2-3}\text{alkenylR}^{14}$ (wherein R^{14} is a 5 or 6 membered saturated heterocyclic group with one or two heteroatoms, selected independently from O, S and N, which heterocyclic group may bear one or two substituents selected from oxo, hydroxy, halogeno, C_{1-4} alkyl, C_{1-4} hydroxyalkyl, C_{1-4} alkoxy, carbamoyl, C_{1-4} alkylcarbamoyl, $\text{N,N-di}(\text{C}_{1-4}\text{alkyl})\text{carbamoyl}$, C_{1-4} alkanoyl and C_{1-4} alkoxycarbonyl);
- 3) $\text{C}_{2-3}\text{alkynylR}^{15}$ (wherein R^{15} is a 5 or 6 membered saturated heterocyclic group with one or two heteroatoms, selected independently from O, S and N, which heterocyclic group may bear one or two substituents selected from oxo, hydroxy, halogeno, C_{1-4} alkyl, C_{1-4} hydroxyalkyl, C_{1-4} alkoxy, carbamoyl, C_{1-4} alkylcarbamoyl, $\text{N,N-di}(\text{C}_{1-4}\text{alkyl})\text{carbamoyl}$, C_{1-4} alkanoyl and C_{1-4} alkoxycarbonyl);
- 4) $\text{C}_{1-3}\text{alkylX}^2\text{C}_{1-3}\text{alkylX}^3\text{R}^{16}$ (wherein X^2 and X^3 which may be the same or different are each -O-, -S-, -SO-, -SO₂-, -NR¹⁷CO-, -CONR¹⁸-, -SO₂NR¹⁹-, -NR²⁰SO₂- or -NR²¹- (wherein R^{17} , R^{18} , R^{19} , R^{20} and R^{21} each independently represents hydrogen, $\text{C}_{1-3}\text{alkyl}$ or $\text{C}_{1-3}\text{alkoxyC}_{2-3}\text{alkyl}$) and R^{16} represents hydrogen or $\text{C}_{1-3}\text{alkyl}$) with the proviso that X^1 cannot be -CH₂- when R^4 is $\text{C}_{1-3}\text{alkylX}^2\text{C}_{1-3}\text{alkylX}^3\text{R}^{16}$;
- 5) $\text{C}_{1-3}\text{alkylX}^4\text{COR}^{22}$ (wherein X^4 represents -O- or -NR²³- (wherein R^{23} represents hydrogen, $\text{C}_{1-3}\text{alkyl}$ or $\text{C}_{1-3}\text{alkoxyC}_{2-3}\text{alkyl}$) and R^{22} represents -NR²⁴R²⁵ or -OR²⁶ (wherein R^{24} , R^{25} and R^{26} which may be the same or different each represents hydrogen, $\text{C}_{1-4}\text{alkyl}$ or $\text{C}_{1-3}\text{alkoxyC}_{2-3}\text{alkyl}$));
- 6) $\text{C}_{1-3}\text{alkylX}^5\text{R}^{27}$ (wherein X^5 represents -O-, -S-, -SO-, -SO₂-, -OCO-, -NR²⁸CO-, -CONR²⁹-, -SO₂NR³⁰-, -NR³¹SO₂- or -NR³²- (wherein R^{28} , R^{29} , R^{30} , R^{31} and R^{32} each independently represents hydrogen, $\text{C}_{1-3}\text{alkyl}$ or $\text{C}_{1-3}\text{alkoxyC}_{2-3}\text{alkyl}$) or X^5 is carbonyl, and R^{27} represents cyclopentyl, cyclohexyl or a 5 or 6 membered saturated heterocyclic group with one or two heteroatoms, selected independently from O, S and N, which cyclopentyl, cyclohexyl or heterocyclic group may bear one or two substituents selected from oxo, hydroxy, halogeno, $\text{C}_{1-4}\text{alkyl}$, C_{1-4} hydroxyalkyl, C_{1-4} alkoxy, carbamoyl, C_{1-4} alkylcarbamoyl, $\text{N,N-di}(\text{C}_{1-4}\text{alkyl})\text{carbamoyl}$, C_{1-4} alkanoyl and C_{1-4} alkoxycarbonyl or R^{27} is $\text{C}_{1-3}\text{alkyl}$ with the proviso that when R^{27} is $\text{C}_{1-3}\text{alkyl}$, X^5 is -S-, -SO-, -SO₂-, -SO₂NR³⁰- or -NR³¹SO₂- and X^1 is not -CH₂-);

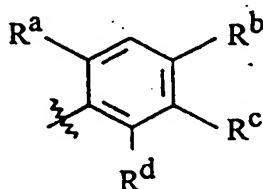
- 118 -

- 7) C_{1-3} alkoxy C_{2-4} alkyl provided that X^1 is -S-, -SO- or -SO₂-;
- 8) C_{1-3} alkoxy C_{2-4} alkyl or C_{1-4} alkyl provided that X^1 is -O-;
- 9) C_{1-3} alkyl X^6 C_{1-3} alkyl R^{33} (wherein X^6 represents -O-, -S-, -SO-, -SO₂-, -NR³⁴CO-, -CONR³⁵-, -SO₂NR³⁶-, -NR³⁷SO₂- or -NR³⁸- (wherein R^{34} , R^{35} , R^{36} , R^{37} and R^{38} each independently represents hydrogen, C_{1-3} alkyl or C_{1-3} alkoxy C_{2-3} alkyl) and R^{33} represents cyclopentyl, cyclohexyl or a 5 or 6 membered saturated heterocyclic group with one or two heteroatoms, selected independently from O, S and N, which cyclopentyl, cyclohexyl or heterocyclic group may bear one or two substituents selected from oxo, hydroxy, halogeno, C_{1-4} alkyl, C_{1-4} hydroxyalkyl, C_{1-4} alkoxy, carbamoyl, C_{1-4} alkylcarbamoyl, N,N-di(C_{1-4} alkyl)carbamoyl, C_{1-4} alkanoyl and C_{1-4} alkoxycarbonyl);
- 10) R^{39} (wherein R^{39} is a group selected from pyrrolidin-3-yl, piperidin-3-yl and piperidin-4-yl which group may bear one or two substituents selected from oxo, hydroxy, halogeno, C_{1-4} alkyl, C_{1-4} hydroxyalkyl, C_{1-4} alkoxy, carbamoyl, C_{1-4} alkylcarbamoyl, N,N-di(C_{1-4} alkyl)carbamoyl, C_{1-4} alkanoyl and C_{1-4} alkoxycarbonyl);
- 11) C_{1-3} alkyl R^{40} (wherein R^{40} is piperazin-1-yl which bears at least one substituent selected from C_{1-4} alkanoyl, C_{1-4} alkoxycarbonyl, C_{1-4} hydroxyalkyl and -CONR⁴¹R⁴² (wherein R^{41} and R^{42} each independently represents hydrogen or C_{1-4} alkyl);
- 12) C_{1-3} alkyl R^{43} (wherein R^{43} is morpholino which may bear one or two substituents selected from oxo, C_{1-4} alkyl, C_{1-4} hydroxyalkyl, carbamoyl, C_{1-4} alkylcarbamoyl, N,N-di(C_{1-4} alkyl)carbamoyl, C_{1-4} alkanoyl and C_{1-4} alkoxycarbonyl) with the proviso that when R^4 is C_{1-3} alkyl R^{43} , X^1 is -S-, -SO-, -SO₂-, -SO₂NR⁹- or -NR¹⁰SO₂-; and
- 13) C_{1-3} alkyl R^{44} (wherein R^{44} is morpholino which bears at least one and optionally two substituents selected from oxo, C_{1-4} alkyl, C_{1-4} hydroxyalkyl, carbamoyl, C_{1-4} alkylcarbamoyl, N,N-di(C_{1-4} alkyl)carbamoyl, C_{1-4} alkanoyl and C_{1-4} alkoxycarbonyl); with the further proviso that when R^4 is selected from group 8) R^1 and/or R^2 is/are nitro or at least one R^3 is C_{1-3} alkanoyloxy;]
- and salts thereof.

2. A quinazoline derivative as claimed in claim 1 wherein R^1 represents hydrogen, hydroxy, cyano, nitro, trifluoromethyl, methyl, ethyl, methoxy or ethoxy.

3. A quinazoline derivative as claimed in claim 1 or claim 2 wherein R^2 is hydrogen.

4. A quinazoline derivative as claimed in any one of the preceding claims wherein the phenyl group bearing $(R^3)_m$ is of the formula II:



(II)

wherein:

R^a represents hydrogen, methyl, fluoro or chloro;

R^b represents hydrogen, methyl, methoxy, bromo, fluoro or chloro;

R^c represents hydrogen or hydroxy;

R^d represents hydrogen, fluoro or chloro.

5. A quinazoline derivative as claimed in any one of the preceding claims wherein X^1 represents $-O-$, $-S-$, $-NR^7CO-$, $-NR^{10}SO_2-$ or $-NR^{11}-$ (wherein R^7 , R^{10} and R^{11} each independently represents hydrogen, C_{1-2} alkyl or C_{1-2} alkoxyethyl).

6. A quinazoline derivative as claimed in any one of the preceding claims wherein R^4 is selected from one of the following eleven groups:

1) C_{1-4} alkyl R^{12} (wherein R^{12} is a group selected from 1,3-dioxolan-2-yl, 1,3-dioxan-2-yl, 1,3-dithiolan-2-yl, 1,3-dithian-2-yl, pyrrolidin-2-yl, pyrrolidin-3-yl, piperidin-2-yl, piperidin-3-yl, piperidin-4-yl, morpholin-2-yl, morpholin-3-yl and piperazin-2-yl which group may bear one or two substituents selected from oxo, hydroxy, halogeno, C_{1-3} alkyl, C_{1-3} hydroxyalkyl, C_{1-3} alkoxy, carbamoyl, C_{1-3} alkylcarbamoyl, N,N -di(C_{1-3} alkyl).

,alkyl)carbamoyl, C_{2,3}alkanoyl and C_{1,3}alkoxycarbonyl) or C_{2,4}alkylR⁴⁵ (wherein R⁴⁵ is a group selected from imidazolidin-1-yl, pyrrolidin-1-yl and thiomorpholino which group may bear one or two substituents selected from oxo, hydroxy, halogeno, C_{1,3}alkyl, C_{1,3}hydroxyalkyl, C_{1,3}alkoxy, carbamoyl, C_{1,3}alkylcarbamoyl, N,N-di(C_{1,3}alkyl)carbamoyl, C_{2,3}alkanoyl and C_{1,3}alkoxycarbonyl);

2) 1-R⁴⁶prop-1-en-3-yl, 1-R⁴⁶but-2-en-4-yl, 1-R⁴⁶but-1-en-3-yl, 1-R⁴⁶pent-2-en-4-yl or 2-R⁴⁶pent-3-en-5-yl (wherein R⁴⁶ is a 5 or 6 membered saturated heterocyclic group with one or two heteroatoms, selected independently from O, S and N, which heterocyclic group is linked to the alkenyl group through a carbon atom and which heterocyclic group may bear one or two substituents selected from oxo, hydroxy, halogeno, C_{1,3}alkyl, C_{1,3}hydroxyalkyl, C_{1,3}alkoxy, carbamoyl, C_{1,3}alkylcarbamoyl, N,N-di(C_{1,3}alkyl)carbamoyl, C_{2,3}alkanoyl and C_{1,3}alkoxycarbonyl) or 1-R⁴⁷but-2-en-4-yl, 1-R⁴⁷pent-2-en-4-yl or 2-R⁴⁷pent-3-en-5-yl (wherein R⁴⁷ is a 5 or 6 membered saturated heterocyclic group with one or two heteroatoms, of which one is N and the other is selected independently from O, S and N, which heterocyclic group is linked to the alkenyl group through a nitrogen atom and which heterocyclic group may bear one or two substituents selected from oxo, hydroxy, halogeno, C_{1,3}alkyl, C_{1,3}hydroxyalkyl, C_{1,3}alkoxy, carbamoyl, C_{1,3}alkylcarbamoyl, N,N-di(C_{1,3}alkyl)carbamoyl, C_{2,3}alkanoyl and C_{1,3}alkoxycarbonyl);

3) 1-R⁴⁸prop-1-yn-3-yl, 1-R⁴⁸but-2-yn-4-yl, 1-R⁴⁸but-1-yn-3-yl, 1-R⁴⁸pent-2-yn-4-yl or 2-R⁴⁸pent-3-yn-5-yl (wherein R⁴⁸ is a 5 or 6 membered saturated heterocyclic group with one or two heteroatoms, selected independently from O, S and N, which heterocyclic group is linked to the alkynyl group through a carbon atom and which heterocyclic group may bear one or two substituents selected from oxo, hydroxy, halogeno, C_{1,3}alkyl, C_{1,3}hydroxyalkyl, C_{1,3}alkoxy, carbamoyl, C_{1,3}alkylcarbamoyl, N,N-di(C_{1,3}alkyl)carbamoyl, C_{2,3}alkanoyl and C_{1,3}alkoxycarbonyl) or 1-R⁴⁹but-2-yn-4-yl, 1-R⁴⁹pent-2-yn-4-yl or 2-R⁴⁹pent-3-yn-5-yl (wherein R⁴⁹ is a 5 or 6 membered saturated heterocyclic group with one or two heteroatoms, of which one is N and the other is selected independently from O, S and N, which heterocyclic group is linked to the alkynyl group through a nitrogen atom and which heterocyclic group may bear one or two substituents selected from oxo, hydroxy, halogeno, C_{1,3}alkyl, C_{1,3}hydroxyalkyl, C_{1,3}alkoxy, carbamoyl, C_{1,3}alkylcarbamoyl, N,N-di(C_{1,3}alkyl)carbamoyl, C_{2,3}alkanoyl and C_{1,3}alkoxycarbonyl);

- ,hydroxyalkyl, C_{1,3}alkoxy, carbamoyl, C_{1,3}alkylcarbamoyl, N,N-di(C_{1,3}alkyl)carbamoyl, C_{2,3}alkanoyl and C_{1,3}alkoxycarbonyl);
- 4) C_{2,3}alkylX²C_{1,3}alkylX³R¹⁶ (wherein X² and X³ are as defined in claim 1 and R¹⁶ represents hydrogen or C_{1,3}alkyl) with the proviso that X¹ cannot be -CH₂- when R⁴ is C_{2,3}alkylX²C_{1,3}alkylX³R¹⁶;
- 5) C_{2,3}alkylX⁴COR²² (wherein X⁴ is as defined in claim 1 and R²² represents -NR²⁴R²⁵ or -OR²⁶ (wherein R²⁴, R²⁵ and R²⁶ which may be the same or different each represents hydrogen, C_{1,4}alkyl or C_{1,2}alkoxyethyl));
- 6) C_{2,3}alkylX⁵R²⁷ (wherein X⁵ is as defined in claim 1 and R²⁷ represents a group selected from cyclopentyl, cyclohexyl, pyrrolidinyl and piperidinyl which group is linked to X⁵ through a carbon atom and which group may carry one substituent selected from oxo, hydroxy, halogeno, C_{1,2}alkyl, C_{1,2}hydroxyalkyl, C_{1,2}alkoxy, carbamoyl, C_{1,2}alkylcarbamoyl, N,N-di(C_{1,2}alkyl)carbamoyl, acetyl and C_{1,2}alkoxycarbonyl or R²⁷ is C_{1,3}alkyl with the proviso that when R²⁷ is C_{1,3}alkyl, X⁵ is -S-, -SO-, -SO₂-, -SO₂NR³⁰- or -NR³¹SO₂- and X¹ is not -CH₂-);
- 7) C_{1,2}alkoxyC_{2,3}alkyl provided that X¹ is -S-, -SO- or -SO₂-;
-
- 8) C_{2,3}alkylX⁶C_{2,3}alkylR³³ (wherein X⁶ is as defined in claim 1 and R³³ represents a 5 or 6 membered saturated heterocyclic group with one or two heteroatoms, selected independently from O, S and N, which heterocyclic group may bear one or two substituents selected from oxo, hydroxy, halogeno, C_{1,3}alkyl, C_{1,3}hydroxyalkyl, C_{1,3}alkoxy, carbamoyl, C_{1,3}alkylcarbamoyl, N,N-di(C_{1,3}alkyl)carbamoyl, C_{2,3}alkanoyl, and C_{1,3}alkoxycarbonyl);
- 9) C_{2,3}alkylR⁴⁰ (wherein R⁴⁰ is piperazin-1-yl which bears at least one substituent selected from acetyl, C_{1,2}alkoxycarbonyl, C_{1,2}hydroxyalkyl and CONR⁴¹R⁴² (wherein R⁴¹ and R⁴² each independently represents hydrogen or C_{1,2}alkyl);
- 10) C_{2,3}alkylR⁴³ (wherein R⁴³ is morpholino which may bear one or two substituents selected from oxo, C_{1,2}alkyl, C_{1,2}hydroxyalkyl, carbamoyl, C_{1,2}alkylcarbamoyl, N,N-di(C_{1,2}alkyl)carbamoyl, acetyl and C_{1,2}alkoxycarbonyl) with the proviso that when R⁴ is C_{2,3}alkylR⁴³, X¹ is -S-, -SO-, -SO₂-, -SO₂NR⁹- or -NR¹⁰SO₂-; and

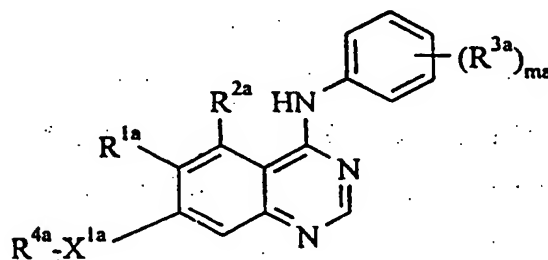
11) $C_{2,3}alkylR^{44}$ (wherein R^{44} is morpholino which bears at least one and optionally two substituents selected from oxo, $C_{1,2}alkyl$, $C_{1,2}hydroxyalkyl$, carbamoyl, $C_{1,2}alkylcarbamoyl$, N,N -di($C_{1,2}alkyl$)carbamoyl, acetyl and $C_{1,2}alkoxycarbonyl$).

7. A quinazoline derivative as claimed in claim 6 wherein R^4 is selected from one of the following nine groups:

- 1) $C_{1,3}alkylR^{12}$ (wherein R^{12} is a group selected from 1,3-dioxolan-2-yl, 1,3-dioxan-2-yl, 1,3-dithiolan-2-yl, 1,3-dithian-2-yl, pyrrolidin-2-yl, pyrrolidin-3-yl, piperidin-2-yl, piperidin-3-yl, piperidin-4-yl, morpholin-2-yl, morpholin-3-yl and piperazin-2-yl which group may bear one or two substituents selected from oxo, hydroxy, halogeno, $C_{1,2}alkyl$, $C_{1,2}hydroxyalkyl$, $C_{1,2}alkoxy$, carbamoyl, $C_{1,2}alkylcarbamoyl$, N,N -di($C_{1,2}alkyl$)carbamoyl, acetyl and $C_{1,2}alkoxycarbonyl$) or $C_{2,3}alkylR^{45}$ (wherein R^{45} is a group selected from imidazolidin-1-yl, pyrrolidin-1-yl and thiomorpholino which group may bear one or two substituents selected from oxo, hydroxy, halogeno, $C_{1,2}alkyl$, $C_{1,2}hydroxyalkyl$, $C_{1,2}alkoxy$, carbamoyl, $C_{1,2}alkylcarbamoyl$, N,N -di($C_{1,2}alkyl$)carbamoyl, acetyl and $C_{1,2}alkoxycarbonyl$);
- 2) $1-R^{50}but-2-en-4-yl$ (wherein R^{50} is a group selected from imidazolidin-1-yl, 1,3-dioxolan-2-yl, 1,3-dioxan-2-yl, 1,3-dithiolan-2-yl, 1,3-dithian-2-yl, piperidin-4-yl, pyrrolidin-1-yl, pyrrolidin-3-yl, piperazin-1-yl, morpholino, thiomorpholino and piperidino which group may bear one or two substituents selected from oxo, hydroxy, halogeno, $C_{1,2}alkyl$, $C_{1,2}hydroxyalkyl$, $C_{1,2}alkoxy$, carbamoyl, $C_{1,2}alkylcarbamoyl$, N,N -di($C_{1,2}alkyl$)carbamoyl, acetyl and $C_{1,2}alkoxycarbonyl$);
- 3) $1-R^{51}but-2-yn-4-yl$ (wherein R^{51} is a group selected from imidazolidin-1-yl, 1,3-dioxolan-2-yl, 1,3-dioxan-2-yl, 1,3-dithiolan-2-yl, 1,3-dithian-2-yl, piperidin-4-yl, pyrrolidin-1-yl, pyrrolidin-3-yl, piperazin-1-yl, morpholino, thiomorpholino and piperidino which group may bear one or two substituents selected from oxo, hydroxy, halogeno, $C_{1,2}alkyl$, $C_{1,2}hydroxyalkyl$, $C_{1,2}alkoxy$, carbamoyl, $C_{1,2}alkylcarbamoyl$, N,N -di($C_{1,2}alkyl$)carbamoyl, acetyl and $C_{1,2}alkoxycarbonyl$);
- 4) $C_{2,3}alkylX^2C_{1,3}alkylX^3R^{16}$ (wherein X^2 and X^3 are as defined in claim 1 and R^{16} represents hydrogen or $C_{1,3}alkyl$) with the proviso that X^1 cannot be $-CH_2-$ when R^4 is $C_{2,3}alkylX^2C_{1,3}alkylX^3R^{16}$;

- 5) $C_{1,2}$ alkoxy $C_{2,3}$ alkyl provided that X^1 is -S-, -SO- or -SO₂-;
- 6) 2-(3,3-dimethylureido)ethyl, 3-(3,3-dimethylureido)propyl, 2-(3-methylureido)ethyl, 3-(3-methylureido)propyl, 2-ureidoethyl, 3-ureidopropyl, 2-(N,N-dimethylcarbamoyloxy)ethyl, 3-(N,N-dimethylcarbamoyloxy)propyl, 2-(N-methylcarbamoyloxy)ethyl, 3-(N-methylcarbamoyloxy)propyl, 2-(carbamoyloxy)ethyl, 3-(carbamoyloxy)propyl, 2-(1,3,3-trimethylureido)ethyl, 3-(1,3,3-trimethylureido)propyl, 2-(isopropoxycarbonylamino)ethyl, 3-(isopropoxycarbonylamino)propyl, 2-(isobutoxycarbonylamino)ethyl, 3-(isobutoxycarbonylamino)propyl, 2-(*t*-butoxycarbonylamino)ethyl or 3-(*t*-butoxycarbonylamino)propyl;
- 7) $C_{2,3}$ alkyl X^5R^{27} (wherein R^{27} is $C_{1,2}$ alkyl and X^5 is -S-, -SO-, -SO₂-, -SO₂NR³⁰- or -NR³¹SO₂- and with the proviso that X^1 is not -CH₂-);
- 8) $C_{2,3}$ alkyl $X^6C_{2,3}$ alkyl R^{33} (wherein X^6 is as defined in claim 1 and R^{33} represents a group selected from morpholino, 2-oxopyrrolidin-1-yl, pyrrolidin-1-yl, piperidino, piperazin-1-yl and 4-methylpiperazin-1-yl); and
- 9) $C_{2,3}$ alkyl R^{43} (wherein R^{43} is morpholino which may bear one or two substituents selected from oxo, $C_{1,2}$ alkyl, $C_{1,2}$ hydroxyalkyl, carbamoyl, $C_{1,2}$ alkylcarbamoyl, N,N-di($C_{1,2}$ alkyl)carbamoyl, acetyl and $C_{1,2}$ alkoxycarbonyl) with the proviso that when R^4 is $C_{2,3}$ alkyl R^{43} , X^1 is -S-, -SO-, -SO₂-, -SO₂NR⁹- or -NR¹⁰SO₂-.

8. A compound as claimed in claim 1 of the formula Ia:



(Ia)

[wherein:

R^{1a} is hydrogen or methoxy;

R^{2a} is hydrogen;

the phenyl group bearing (R^{3a})_{ma} is the 4-chloro-2-fluorophenyl group or the 4-bromo-2-fluorophenyl group;

X^{1a} is -O-, -S-, -NR^{5a}CO- or -NR^{6a}SO₂- (wherein R^{5a} and R^{6a} each independently represents hydrogen or C₁₋₂alkyl);

R^{4a} is selected from one of the following eleven groups:

1) C₁₋₄alkylR^{7a} (wherein R^{7a} is a group selected from 1,3-dioxolan-2-yl, 1,3-dioxan-2-yl, 1,3-dithiolan-2-yl, 1,3-dithian-2-yl, pyrrolidin-2-yl, pyrrolidin-3-yl, piperidin-2-yl, piperidin-3-yl, piperidin-4-yl, morpholin-2-yl, morpholin-3-yl and piperazin-2-yl

which group may bear one or two substituents selected from oxo, hydroxy, halogeno, C₁₋₃alkyl, C₁₋₃hydroxyalkyl, C₁₋₃alkoxy, carbamoyl, C₁₋₃alkylcarbamoyl, N,N-di(C₁₋₃alkyl)carbamoyl, C₂₋₃alkanoyl and C₁₋₃alkoxycarbonyl) or C₂₋₄alkylR^{8a} (wherein R^{8a} is a group selected from imidazolidin-1-yl, pyrrolidin-1-yl and thiomorpholino which group may bear one or two substituents selected from oxo, hydroxy, halogeno, C₁₋₃alkyl, C₁₋₃hydroxyalkyl, C₁₋₃alkoxy, carbamoyl, C₁₋₃alkylcarbamoyl, N,N-di(C₁₋₃alkyl)carbamoyl, C₂₋₃alkanoyl and C₁₋₃alkoxycarbonyl);

2) 1-R^{9a}prop-1-en-3-yl, 1-R^{9a}but-2-en-4-yl, 1-R^{9a}but-1-en-3-yl, 1-R^{9a}pent-2-en-4-yl or 2-R^{9a}pent-3-en-5-yl (wherein R^{9a} is a 5 or 6 membered saturated heterocyclic group with one or two heteroatoms, selected independently from O, S and N, which heterocyclic group is linked to the alkenyl group through a carbon atom and which heterocyclic group may bear one or two substituents selected from oxo, hydroxy, halogeno, C₁₋₃alkyl, C₁₋₃hydroxyalkyl, C₁₋₃alkoxy, carbamoyl, C₁₋₃alkylcarbamoyl, N,N-di(C₁₋₃alkyl)carbamoyl, C₂₋₃alkanoyl and C₁₋₃alkoxycarbonyl) or 1-R^{10a}but-2-en-4-yl, 1-R^{10a}pent-2-en-4-yl or 2-R^{10a}pent-3-en-5-yl (wherein R^{10a} is a 5 or 6 membered saturated heterocyclic group with one or two heteroatoms, of which one is N and the other is selected independently from O, S and N, which heterocyclic group is linked to the alkenyl group through a nitrogen atom and which heterocyclic group may bear one or two substituents selected from oxo, hydroxy, halogeno, C₁₋₃alkyl, C₁₋₃hydroxyalkyl, C₁₋₃alkoxy, carbamoyl, C₁₋₃alkylcarbamoyl, N,N-di(C₁₋₃alkyl)carbamoyl, C₂₋₃alkanoyl and C₁₋₃alkoxycarbonyl);

- 3) 1-R^{11a}prop-1-yn-3-yl, 1-R^{11a}but-2-yn-4-yl, 1-R^{11a}but-1-yn-3-yl, 1-R^{11a}pent-2-yn-4-yl or 2-R^{11a}pent-3-yn-5-yl (wherein R^{11a} is a 5 or 6 membered saturated heterocyclic group with one or two heteroatoms, selected independently from O, S and N, which heterocyclic group is linked to the alkynyl group through a carbon atom and which heterocyclic group may bear one or two substituents selected from oxo, hydroxy, halogeno, C₁₋₃alkyl, C₁₋₃hydroxyalkyl, C₁₋₃alkoxy, carbamoyl, C₁₋₃alkylcarbamoyl, N,N-di(C₁₋₃alkyl)carbamoyl, C₂₋₃alkanoyl and C₁₋₃alkoxycarbonyl) or 1-R^{12a}but-2-yn-4-yl, 1-R^{12a}pent-2-yn-4-yl or 2-R^{12a}pent-3-yn-5-yl (wherein R^{12a} is a 5 or 6 membered saturated heterocyclic group with one or two heteroatoms, of which one is N and the other is selected independently from O, S and N, which heterocyclic group is linked to the alkynyl group through a nitrogen atom and which heterocyclic group may bear one or two substituents selected from oxo, hydroxy, halogeno, C₁₋₃alkyl, C₁₋₃hydroxyalkyl, C₁₋₃alkoxy, carbamoyl, C₁₋₃alkylcarbamoyl, N,N-di(C₁₋₃alkyl)carbamoyl, C₂₋₃alkanoyl and C₁₋₃alkoxycarbonyl);
- 4) C₂₋₃alkylX^{2a}C₁₋₃alkylX^{3a}R^{13a} (wherein X^{2a} and X^{3a} which may be the same or different each represents -O-, -S-, -SO-, -SO₂-, -NR^{14a}CO-, or -NR^{15a}- (wherein R^{14a} and R^{15a} each independently represents hydrogen, C₁₋₂alkyl or C₁₋₂alkoxyethyl) and R^{13a} represents hydrogen or C₁₋₃alkyl);
- 5) C₂₋₃alkylX^{4a}COR^{16a} (wherein X^{4a} represents -O- or -NR^{17a}- (wherein R^{17a} represents hydrogen, C₁₋₃alkyl or C₁₋₂alkoxyethyl) and R^{16a} represents -NR^{18a}R^{19a} or -OR^{20a} (wherein R^{18a}, R^{19a} and R^{20a} which may be the same or different each represents hydrogen, C₁₋₄alkyl or C₁₋₂alkoxyethyl));
- 6) C₂₋₃alkylX^{5a}R^{21a} (wherein X^{5a} represents carbonyl, -O-, -S-, -SO-, -SO₂-, -NR^{22a}CO-, -NR^{23a}SO₂- or -NR^{24a}- (wherein R^{22a}, R^{23a} and R^{24a} each independently represents hydrogen, C₁₋₂alkyl or C₁₋₂alkoxyethyl) and R^{21a} represents a group selected from cyclopentyl, cyclohexyl, pyrrolidinyl and piperidinyl which group is linked to X^{5a} through a carbon atom and which group may carry one substituent selected from oxo, hydroxy, halogeno, C₁₋₂alkyl, C₁₋₂hydroxyalkyl, C₁₋₂alkoxy, carbamoyl, C₁₋₂alkylcarbamoyl, N,N-di(C₁₋₂alkyl)carbamoyl, acetyl and C₁₋₂alkoxycarbonyl or R^{21a} is C₁₋₃alkyl with the proviso that when R^{21a} is C₁₋₃alkyl, X^{5a} is -S-, -SO-, -SO₂- or -NR^{23a}SO₂-);

- 7) $C_{1,2}$ alkoxy $C_{2,3}$ alkyl provided that X^{1a} is -S-;
- 8) $C_{2,3}$ alkyl X^{6a} $C_{2,3}$ alkyl R^{25a} (wherein X^{6a} represents -O-, -S-, -SO-, -SO₂-, -NR^{26a}CO-, -NR^{27a}SO₂- or -NR^{28a}- (wherein R^{26a} , R^{27a} and R^{28a} each independently represents hydrogen, $C_{1,2}$ alkyl or $C_{1,2}$ alkoxyethyl) and R^{25a} represents a 5 or 6 membered saturated heterocyclic group with one or two heteroatoms, selected independently from O, S and N, which heterocyclic group may bear one or two substituents selected from oxo, hydroxy, halogeno, $C_{1,3}$ alkyl, $C_{1,3}$ hydroxyalkyl, $C_{1,3}$ alkoxy, carbamoyl, $C_{1,3}$ alkylcarbamoyl, N,N-di($C_{1,3}$ alkyl)carbamoyl, $C_{2,3}$ alkanoyl, and $C_{1,3}$ alkoxycarbonyl);
- 9) $C_{2,3}$ alkyl R^{29a} (wherein R^{29a} is piperazin-1-yl which bears at least one substituent selected from acetyl, $C_{1,2}$ alkoxycarbonyl, $C_{1,2}$ hydroxyalkyl and CONR^{30a}R^{31a} (wherein R^{30a} and R^{31a} each independently represents hydrogen or $C_{1,2}$ alkyl);
- 10) $C_{2,3}$ alkyl R^{32a} (wherein R^{32a} is morpholino which may bear one or two substituents selected from oxo, $C_{1,2}$ alkyl, $C_{1,2}$ hydroxyalkyl, carbamoyl, $C_{1,2}$ alkylcarbamoyl, N,N-di($C_{1,2}$ alkyl)carbamoyl, acetyl and $C_{1,2}$ alkoxycarbonyl) with the proviso that when R^{4a} is $C_{2,3}$ alkyl R^{32a} , X^{1a} is -S- or -NR^{6a}SO₂- (wherein R^{6a} is as defined herein); and
- 11) $C_{2,3}$ alkyl R^{33a} (wherein R^{33a} is morpholino which bears at least one and optionally two substituents selected from oxo, $C_{1,2}$ alkyl, $C_{1,2}$ hydroxyalkyl, carbamoyl, $C_{1,2}$ alkylcarbamoyl, N,N-di($C_{1,2}$ alkyl)carbamoyl, acetyl and $C_{1,2}$ alkoxycarbonyl);] and salts thereof.

9. A quinazoline derivative as claimed in claim 1 selected from:-

4-(4-chloro-2-fluoroanilino)-7-(1,3-dioxolan-2-ylmethoxy)-6-methoxyquinazoline,

4-(4-chloro-2-fluoroanilino)-6-methoxy-7-(4-morpholinobut-2-yn-1-yloxy)quinazoline,

(E)-4-(4-chloro-2-fluoroanilino)-6-methoxy-7-(4-morpholinobut-2-en-1-yloxy)quinazoline,

4-(4-chloro-2-fluoroanilino)-7-(3-(2,6-dimethylmorpholino)propoxy)-6-methoxyquinazoline,

4-(4-chloro-2-fluoroanilino)-6-methoxy-7-(3-([N-methyl-N-methylsulphonyl]amino)propoxy)quinazoline,

7-(2-[N-tert-butoxycarbonylamino]ethoxy)-4-(4-chloro-2-fluoroanilino)-6-methoxyquinazoline,
4-(4-bromo-2-fluoroanilino)-6-methoxy-7-(3-([N-methyl-N-methylsulphonyl]amino)propoxy)quinazoline,
4-(4-chloro-2-fluoroanilino)-6-methoxy-7-(2-(2-oxoimidazolidin-1-yl)ethoxy)quinazoline,
4-(4-chloro-2-fluoroanilino)-6-methoxy-7-(2-(3-oxomorpholino)ethoxy)quinazoline,
4-(4-bromo-2-fluoroanilino)-6-methoxy-7-(2-(3-oxomorpholino)ethoxy)quinazoline,
4-(4-chloro-2-fluoroanilino)-6-methoxy-7-(2-thiomorpholinoethoxy)quinazoline,
(S)-4-(4-bromo-2-fluoroanilino)-7-(3-(2-carbamoylpyrrolidin-1-yl)propoxy)-6-methoxyquinazoline,
4-(4-chloro-2-fluoroanilino)-6-methoxy-7-(3-(2-oxopyrrolidin-1-yl)propoxy)quinazoline,
4-(4-chloro-2-fluoroanilino)-6-methoxy-7-(2-(2-oxopyrrolidin-1-yl)ethoxy)quinazoline,
(S)-7-(3-(2-carbamoylpyrrolidin-1-yl)propoxy)-4-(4-chloro-2-fluoroanilino)-6-methoxyquinazoline,
4-(4-chloro-2-fluoroanilino)-6-methoxy-7-(2-(2-morpholinoethoxy)ethoxy)quinazoline and
4-(4-bromo-2-fluoroanilino)-6-methoxy-7-(3-(2-oxopyrrolidin-1-yl)propoxy)quinazoline
and salts thereof.

10. A quinazoline derivative as claimed in claim 1 selected from:-

4-(4-chloro-2-fluoroanilino)-6-methoxy-7-2-(2-methoxyethoxy)ethoxyquinazoline,
4-(4-chloro-2-fluoroanilino)-6-methoxy-7-(1-methylpiperidin-3-yl)methoxyquinazoline,
4-(4-bromo-2-fluoroanilino)-7-(3-(1,1-dioxothiomorpholino)propoxy)-6-methoxyquinazoline,
4-(4-bromo-2-fluoroanilino)-6-methoxy-7-(2-(2-methoxyethoxy)ethoxy)quinazoline,

4-(4-chloro-2-fluoroanilino)-6-methoxy-7-(2-(2-pyrrolidin-1-ylethoxy)ethoxy)quinazoline,
4-(4-chloro-2-fluoroanilino)-6-methoxy-7-(2-(2-[4-methylpiperazin-1-yl]ethoxy)ethoxy)quinazoline,
4-(4-chloro-2-fluoroanilino)-6-methoxy-7-(3-morpholinopropylthio)quinazoline,
4-(4-chloro-2-fluoroanilino)-6-methoxy-7-(2-([N-methyl-N-methoxyacetyl]amino)ethoxy)quinazoline and
4-(4-bromo-2-fluoroanilino)-6-methoxy-7-(2-(2-oxopyrrolidin-1-yl)ethoxy)quinazoline
and salts thereof.

11. A quinazoline derivative as claimed in claim 1 selected from:-

(E)-4-(4-chloro-2-fluoroanilino)-6-methoxy-7-(4-(pyrrolidin-1-yl)but-2-en-1-yloxy)quinazoline,
4-(4-chloro-2-fluoroanilino)-6-methoxy-7-(3-(methylsulphonyl)propoxy)quinazoline,
(S)-4-(4-chloro-2-fluoroanilino)-6-methoxy-7-(1-methylpiperidin-3-yl)methoxyquinazoline and
(R)-4-(4-chloro-2-fluoroanilino)-6-methoxy-7-(1-methylpiperidin-3-yl)methoxyquinazoline
and salts thereof.

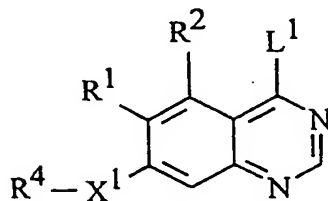
12. A quinazoline derivative as claimed in claim 1 selected from:-

4-(4-chloro-2-fluoroanilino)-6-methoxy-7-(3-(methylsulphonyl)propoxy)quinazoline
and salts thereof.

13. A quinazoline derivative as claimed in any one of the preceding claims in the form of a pharmaceutically acceptable salt.

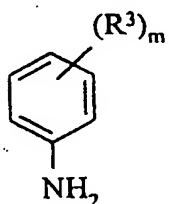
14. A process for the preparation of a quinazoline derivative of formula I or salt thereof (as defined in claim 1) which comprises:-

(a) the reaction of a compound of the formula III:



(III)

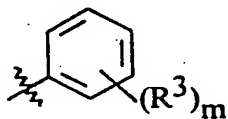
(wherein R^1 , R^2 , X^1 and R^4 are as defined in claim 1 and L^1 is a displaceable moiety),
with a compound of the formula IV:



(IV)

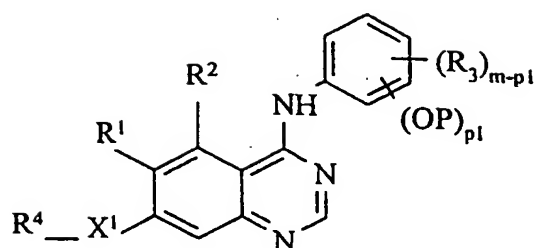
(wherein R^3 and m are as defined in claim 1) whereby to obtain compounds of the
formula I and salts thereof;

(b) for the preparation of compounds of formula I and salts thereof in which the
group of formula IIa:



(IIa)

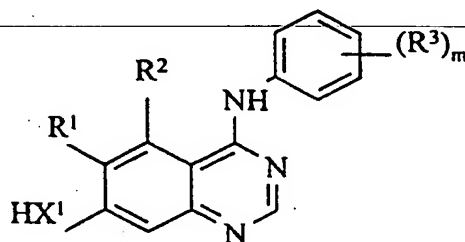
(wherein R^3 and m are as defined in claim 1) represents a phenyl group carrying one
or more hydroxy groups, the deprotection of a compound of formula V:



(V)

(wherein X^1 , m , R^1 , R^2 , R^3 and R^4 are as defined in claim 1, P represents a phenolic hydroxy protecting group and $p1$ is an integer from 1 to 5 equal to the number of protected hydroxy groups and such that $m-p1$ is equal to the number of R^3 substituents which are not protected hydroxy);

(c) for the preparation of those compounds of formula I and salts thereof wherein the substituent X^1 is $-O-$, $-S-$, $-NR^{11}-$, $-SO_2-$, $-CONR^8-$ or $-SO_2NR^9-$, the reaction of a compound of the formula VI:



(VI)

(wherein m , X^1 , R^1 , R^2 and R^3 are as defined in claim 1) with a compound of formula VII:

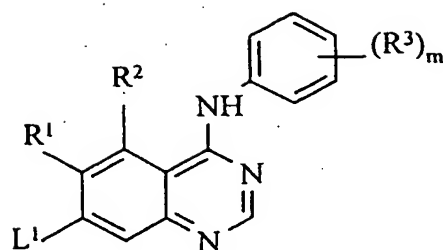


(VII)

(wherein R^4 is as defined in claim 1 and L^1 is as defined herein);

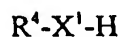
(d) the reaction of a compound of the formula VIII:

- 131 -



(VIII)

with a compound of the formula IX:



(IX)

(wherein R^1 , R^2 , R^3 , R^4 , m and X^1 are as defined in claim 1 and L^1 is as defined herein);

(e) for the preparation of compounds of formula I and salts thereof wherein R^4 is C_{1-3} alkyl R^{53} , [wherein R^{53} is selected from one of the following three groups:

1) X^7R^{27} (wherein X^7 represents -O-, -S-, -SO₂-, -NR⁵⁴CO-, -NR⁵⁵SO₂- or -NR⁵⁶-

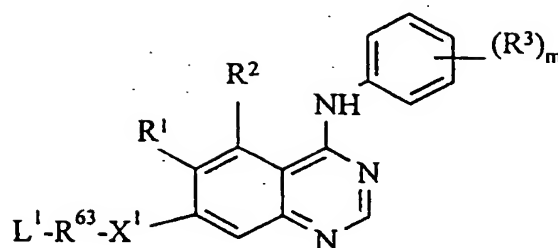
(wherein R^{54} , R^{55} and R^{56} each independently represents hydrogen, C_{1-3} alkyl or C_{1-3} alkoxy C_{2-3} alkyl) and R^{27} is as defined in claim 1);

2) X^8C_{1-3} alkyl X^3R^{16} (wherein X^8 represents -O-, -S-, -SO₂-, -NR⁵⁷CO-, -NR⁵⁸SO₂- or -NR⁵⁹- (wherein R^{57} , R^{58} and R^{59} each independently represents hydrogen, C_{1-3} alkyl or C_{1-3} alkoxy C_{2-3} alkyl) and X^3 and R^{16} are as defined in claim 1); and

3) X^9C_{1-3} alkyl R^{33} (wherein X^9 represents -O-, -S-, -SO₂-, -NR⁶⁰CO-, -NR⁶¹SO₂- or -NR⁶²- (wherein R^{60} , R^{61} and R^{62} each independently represents hydrogen, C_{1-3} alkyl or C_{1-3} alkoxy C_{2-3} alkyl) and R^{33} is as defined in claim 1)];

the reaction of a compound of the formula X:

- 132 -



(X)

(wherein X^1 , R^1 , R^2 , R^3 and m are as defined in claim 1, L^1 is as defined herein and R^{63} is $C_{1,3}$ alkyl) with a compound of the formula XI:



(XI)

(wherein R^{53} is as defined herein) to give a compound of the formula I;
 the preparation of compounds of the formula I wherein R^4 is $C_{2,3}$ alkyl R^{45} , (wherein R^{45} is a group selected from imidazolidin-1-yl, pyrrolidin-1-yl and thiomorpholino, which group may bear one or two substituents selected from oxo, hydroxy, halogeno, $C_{1,4}$ alkyl, $C_{1,4}$ hydroxyalkyl, $C_{1,4}$ alkoxy, carbamoyl, $C_{1,4}$ alkylcarbamoyl, N,N -di($C_{1,4}$ alkyl)carbamoyl, $C_{1,4}$ alkanoyl and $C_{1,4}$ alkoxycarbonyl), the reaction of a compound of formula X (wherein R^{63} is $C_{2,3}$ alkyl) with a compound of the formula XIa:



(XIa)

(wherein R^{45} is as defined herein) to give a compound of the formula I;

(f) for the preparation of those compounds of the formula I and salts thereof wherein the substituent R^1 is represented by $-NR^5R^6$, where one or both of R^5 and R^6 are $C_{1,3}$ alkyl, the reaction of compounds of formula I wherein the substituent R^1 is an amino group with an alkylating agent;

(g) for the preparation of compounds of formula I and salts thereof wherein one or more of the substituents R^1 , R^2 or R^3 is an amino group, the reduction of a

corresponding compound of formula I wherein the substituent(s) at the corresponding position(s) of the quinazoline and/or aniline ring is/are a nitro group(s);
and when a pharmaceutically acceptable salt of a quinazoline derivative of formula I is required, reaction of the compound obtained with an acid or base whereby to obtain the desired pharmaceutically acceptable salt.

15. A pharmaceutical composition which comprises as active ingredient a compound of formula I as defined in claim 1 or a pharmaceutically acceptable salt thereof, in association with a pharmaceutically acceptable excipient or carrier.

16. A method for producing an antiangiogenic and/or vascular permeability reducing effect in a warm-blooded animal in need of such treatment which comprises administering to said animal an effective amount of a compound of formula I or a pharmaceutically acceptable salt thereof as defined in claim 1.
